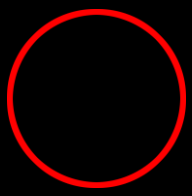

Black by bel canto

We are proud and excited to present to you the BLACK system by Bel Canto. This system is the result of our passion for the ultimate realism in audio playback. It represents over 20 years of research and development. BLACK is a highly-tuned, highly-optimized audio system with more than a dozen proprietary designs and circuits that ensure near perfect signal transfer. Bel Canto BLACK is a promise to deliver a compelling musical experience from any source. We wish you many years of musical enjoyment.

Sincerely,

John Stronczer
CEO and Chief of Design
Bel Canto Design, Ltd.

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Bel Canto Design Limited
221 North 1st Street Suite 300
Minneapolis, MN 55401
United States

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Important Safety Instructions

Explanation of symbols used in this manual or on the rear/underside of the apparatus:

The Lightning Flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product enclosure that may be of sufficient magnitude to constitute a risk of shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

TO COMPLETELY DISCONNECT THIS APPARATUS FROM THE AC MAINS, DISCONNECT THE POWER SUPPLY CORD PLUG FROM THE AC RECEPTACLE.

THE MAINS PLUG OF THE POWER SUPPLY CORD SHALL REMAIN READILY ACCESSIBLE.

Disconnect supply cord before changing fuse. Refer servicing to qualified service personnel.

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPARATUS TO RAIN OR MOISTURE AND OBJECTS FILLED WITH LIQUIDS, SUCH AS VASES, SHOULD NOT BE PLACED ON THIS APPARATUS.

- Read, keep and follow these instructions.
- Heed all warnings.
- Do not use the apparatus near water, e.g. near a bathtub, kitchen sink, laundry tub, in a wet basement, near a swimming pool etc.
- Clean only with a dry cloth.
- Do not block any ventilation openings. Install in accordance with the Manufacturer's instructions. Site the apparatus so that its location or position does not interfere with its proper ventilation. For example, the apparatus should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings, or placed in a built in installation such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus that produce heat.
- Do not defeat the safety purpose of the polarized or grounding type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet; consult an electrician for replacement of the obsolete outlet.
- Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and at the point where they exit from the apparatus.
- Unplug this apparatus during lightning storms or when unused for long periods of time.
- Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug has been damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
- Mains plug: Use the mains plug to disconnect the apparatus from the mains supply. The mains plug must be accessible at all times. Use the mains switch (if applicable) when the apparatus is not in use.
- Objects and liquid entry: Do not let objects or liquids fall into the apparatus. Do not expose the apparatus to dripping or splashing. Do not place a vessel containing liquid on top of the apparatus.
- No naked flame sources, such as lighted candles, should be placed on the apparatus.
- The apparatus has been designed for use in moderate and tropical climates

In the U.K.

Fuse replacement:

This appliance is fitted with a non-rewireable 10 amp mains plug. The plug contains a 10 amp fuse. If the fuse has blown it can be replaced as follows:
a) Pull out the black fuse cover/carrier.
b) Remove and dispose of the blown fuse.
c) Fit a new 10 amp BS1362 approved fuse into the carrier and push the carrier back into the plug.

Always ensure the fuse cover is fitted. If the fuse cover is missing do not use the plug. Contact your Bel Canto retailer to obtain a replacement fuse cover. Fuses are for fire protection and do not protect against electric shock.

WARNING: THIS APPLIANCE MUST BE GROUNDED

FCC Notice

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Green By Design

All Bel Canto products make use of compact and efficient design principles. Our products use less resources per unit to produce better performance than ever before. Everything from reduced packaging volume, to less weight in transport helps to reduce the overall environmental impact of bringing our products into the market.

Our products make very efficient use of electricity. Low energy usage and compact size ensure that the physical and environmental footprints of all Bel Canto products are minimized. Quality and performance play into this approach as all of our products are designed to remain vital and valid performers for many years.

RoHS and WEEE

All of our current products are designed and produced to RoHS standards, ensuring that dangerous materials do not enter the waste stream. Lead free electronics assemblies and environmentally safe finishing and production methods are utilized to ensure that our products and processes are environmentally safe.

Bel Canto Recycles

Bel Canto has always been a forward thinking company. In the same way that we are focused on the development of high-end audio products, we are also conscious of what we leave behind. For many years we have implemented environmentally sound measures to make the most efficient use of resources and keep our impact at a minimum.

We reuse or recycle more than 99% of the packing materials for our incoming parts shipments. Each year we divert massive amounts of cardboard, paper, plastic film, and Styrofoam from landfills. Our plastic and Styrofoam is delivered directly to local facilities that process it on site for use in their manufacturing. Steel, aluminum, and other metal waste products are delivered to local metal scrap yards for recycling back into the production stream.

We also participate in Waste Management's e-Cycling program. All electronic waste is processed in the US, with hazardous material being separated from non-hazardous, at ISO 9001 and ISO 14001 certified regional processing centers.

Our commitment to responsible production processes ensures that the absolute minimum of material used in the making of our products enters the waste stream.

Warranty Information

Bel Canto products are automatically covered by a 90 day factory warranty that covers all internal parts and labor. Register online (http://www.belcantoblack.com/Bel-Canto-Black-Support.html) within 30 days of purchase from an authorized dealer to automatically extend your warranty for 5 years starting from the date of purchase. If you do not have web access, please contact your dealer for assistance. Upon fully completing registration, within 5 business days you will receive an email that officially validates your warranty. Your information will be used for internal use only and will not be sold or released outside Bel Canto. Your comments and suggestions are appreciated and help us continually improve our products and services.

The warranty is only valid to the original owner and is non-transferable. Damage caused by unauthorized modification, abuse, or neglect of product will void your warranty. Any cost associated with return of product is the sole responsibility of the owner. All returns require a return authorization number issued after contacting us at info@belcantodesign.com. If you have any questions, please feel free to contact us online at info@belcantodesign.com.

Unpacking the System

Carefully unpack each unit and check for shipping damage. If there is any damage, or if anything missing, please contact your dealer, distributor of Bel Canto Design.

The following are shipped with your system:

1 (one) – ASC1 Asynchronous Stream Controller
2 (two) – MPS1 PowerStream MonoBlocks
1 (one) – BLACK User's Guide
1 (one) – Remote Control
3 (three) – IEC Power Cables
1 (one) – 2 meter StreamLink ST Fiber Cables
1 (one) – Pair of Gloves

The User's Guide, StreamLink cable, Remote, and Gloves are all packed with the ASC1. The Power Cables are located underneath each unit in a cutout of the base layer foam.

IMPORTANT: Save all packing materials as they are specially designed to protect the units during transportation or shipping. If the packing becomes lost or damaged, please contact your dealer, distributor, or Bel Canto before attempting to transport your system.

Power Connection

The power supplies for the ASC1 and MPS1 are preset for the proper power voltage. The power cable should have the correct plug for your local power system. If you believe this to not be true, please contact your dealer immediately.

This product, like any electrical component, can be dangerous and cause injury unless correct handling procedures are observed and used. Before powering this product, it is necessary to read and follow proper setup and procedures.

WARNING!
DO NOT CONNECT POWER TO THIS PRODUCT YET!

Setup & Placement

The BLACK system can be placed in many locations without compromise. We do not recommend placing weights or other objects directly on the ASC1 or MPS1s. This may scratch or mar the chassis finish. Do not use harsh chemicals when cleaning the outside of your ASC1 or MPS1s. We have found that a damp microfiber cloth works well to remove fingerprints from the chassis.

Single Ended RCA and Balanced XLR connectors are available. XLR jacks allow balanced hookup using the standard North American pin configuration:

Pin 1 Ground
Pin 2 Signal +
Pin 3 Signal -

We recommend placing the ASC1 in an easily accessible location near your source components. Because you will be connecting the ASC1 to the two MPS1s via ST Fiber cabling, you are not required to place the MPS1s near the ASC1. We do not recommend stacking the units directly on top of each other.

The System

Bel Canto BLACK consists of one ASC1 Asynchronous Stream Controller and two MPS1 Mono PowerStreams. The ASC1 controls the input from all of your sources and sends the digital signal to each MPS1. The signal is decoded by each MPS1 and is then sent to your speakers. This creates the purest path to the loudspeaker, maintaining true high dynamic range and breathtaking musical performance.

ASC1

Asynchronous Stream Controller

MPS1

Mono PowerStream

Power up the ASC1 and MPS1 using the rear main power switches. The ASC1 will go through a power up routine visible on the display. The MPS1 starts in low power Standby mode and the 6 LEDs on the lighted front panel switch are lit at a very low level. A brief press on the lighted front panel switch will place the MPS1 in Operate mode with the LEDs brightly lit. The MPS1 will be ready to play in about 10 seconds. While in Operate mode - a brief press on the MPS1 front panel switch will toggle the LED indicator ON-OFF as desired. A long press (3 seconds) will return the MPS1 to Standby mode. Note that all of the audio circuitry is OFF in standby mode. For best sonic performance, it is recommended to leave the MPS1 in Operate mode.

System Connections

ASC1 Connections

IEC AC Power Supply Input internally set for local power voltage & frequency
StreamLink outputs for connection to MPS1 X 2
AES, SPDIF, ST and TOSLINK Digital Audio inputs for connection to legacy digital sources
Ethernet UPnP/DLNA Media Renderer Input
USB 2.0 Audio Input
STREAM OUT
ANALOG IN
DIGITAL IN
ETHERNET
USB
AES Digital Outputs can be used to drive a digital subwoofer or an audio DAC
RCA Line Level Analog Input for Phono Preamp, Surround Processor, or 2 channel preamp MAX 2.5Vrms input
Chassis Ground Lug connection

- Ethernet Input: Adheres to the UPnP/DLNA Media Renderer standard. Can be connected to any Ethernet network for streaming audio. Compatible with FLAC, WAV, ALAC, AIFF, DSD, MP3 files and Internet Radio sources. Can stream up to 24/192 and uses true Asynchronous operation mode to eliminate any source jitter.

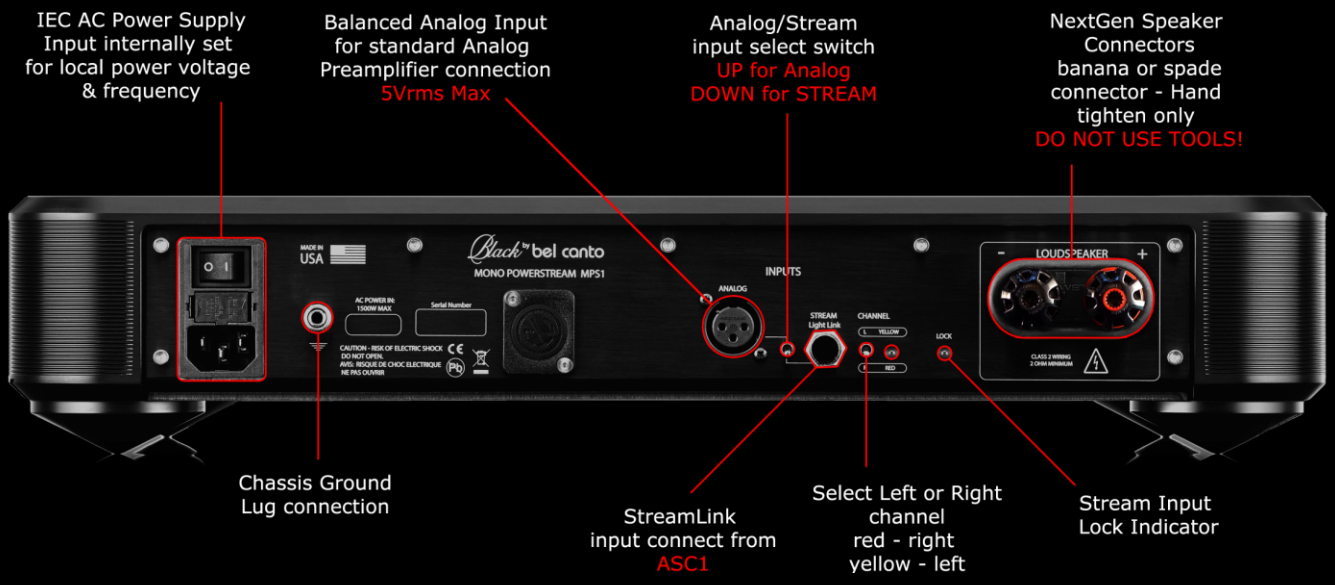
- USB 2.0 Audio Input: Uses Bel Canto Asynchronous technology for direct computer streaming from MAC computers using OSX 6.x.x or later. PC computers using Windows XP, 7 and 8 require installation of Bel Canto's Windows USB driver download from www.belcantodesign.com or www.belcantoblack.com.

- AES, SP1, SP2, ST1, ST2, TOS: Standard digital audio inputs for use with CD/DVD players, Apple TV or other legacy digital audio sources. Benefits from BLACK's unique Asynchronous interface capabilities to remove jitter from these sources.

- Analog: Standard Line level compatible analog RCA inputs go directly to a 24/192 ADC located within 2cm of the input. Benefits from the Ultra-Low Phase noise Master Clock that retimes all of the digital signals in the ASC1 for transparent playback of your analog sources.

System Connections

MPS1 Connections

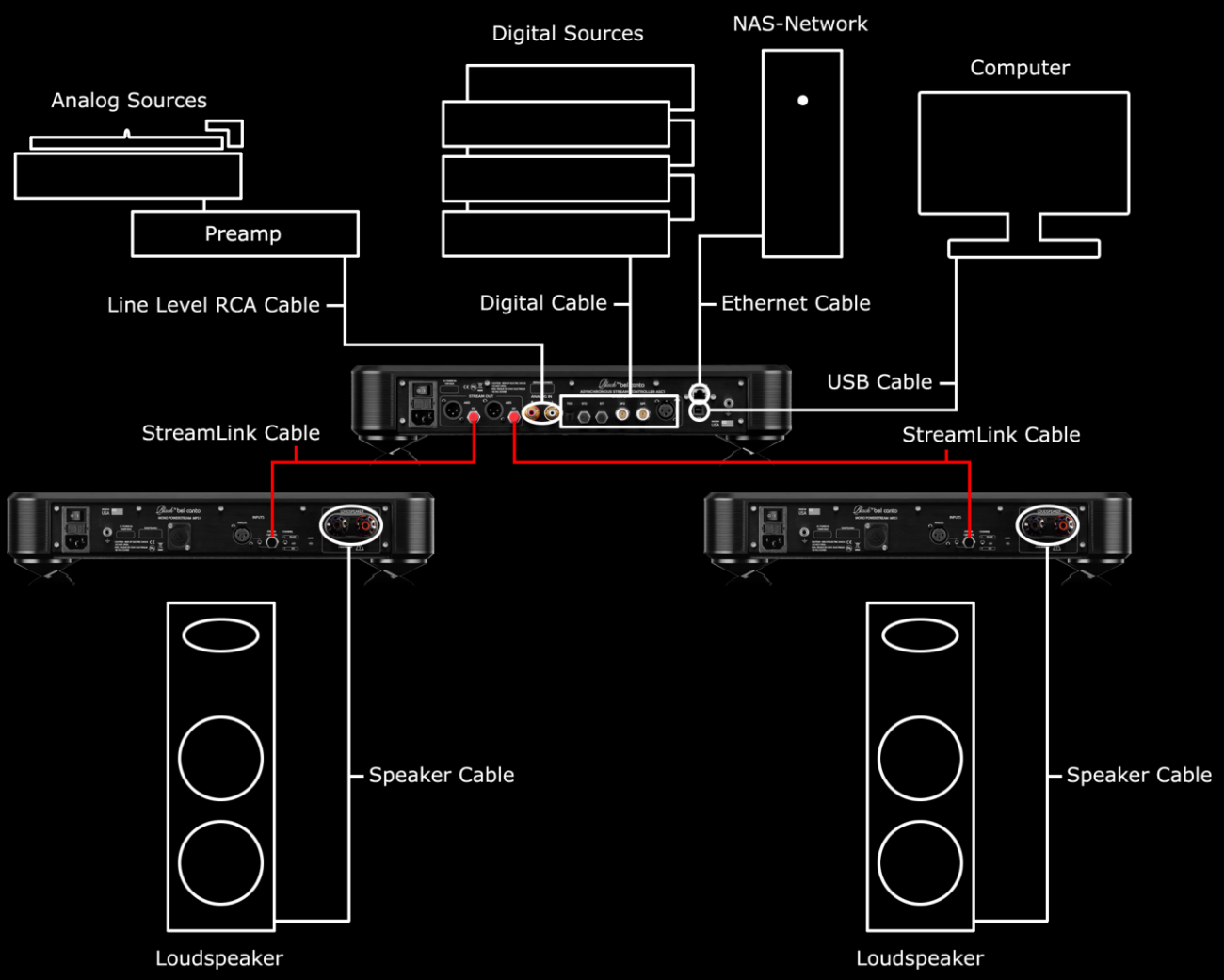


- The BLACK NextGen loudspeaker connectors are optimized for sound quality with any good spade or NextGen banana connector. Note that the NextGen connector is clutched to insure optimum pressure on the contact. - Do not over tighten- The NextGen connector creates a tight and damped contact preventing chatter and contact noise at the connection to the loudspeaker.

- The MPS1 Stream input is used for connection to the ASC1 for optimum system dynamic range and performance. Note that the channel must be set correctly for Left or Right operation and the Channel indicator and Lock indicator LEDs will both be lit when in Stream input mode and connected to the ASC1.

- The MPS1 Analog input is for use with a balanced XLR outputs from an analog preamplifier. This results in reduced dynamic range capability and requires up to 5Vrms for full output level. Note that no rear panel LEDs will be lit when the MPS1 is set in Analog input mode.

System Connections



The BLACK System uses low loss StreamLink ST Fiber to connect the ASC1 Controller front end to the MPS1 Monoblocks. This allows the MPS1s to reside near the loudspeakers while the ASC1 can be located near the source components or listening chair as desired. The system ships with a set of 2 meter StreamLink cables that will work well if the 3 components are located within the same rack. Contact your Bel Canto dealer for custom length StreamLink cables as needed for your system.

Controlling the ASC1

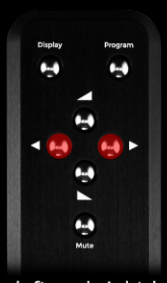
The ASC1 can be operated by using the control wheel on top of the unit, the IR remote, or by using the iOS or Android Application.

ASC1 Display and Control Functions

REMOTE

WHEEL

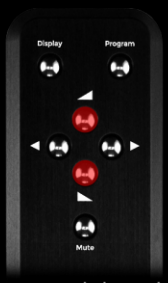
INPUT SELECTION



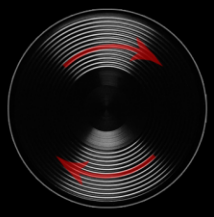
Use the left and right buttons
to change the active input

Brief wheel press to highlight Input
Rotate wheel in either direction
to cycle through inputs

ADJUST VOLUME

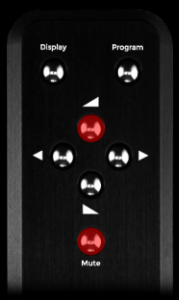


Use the up and down buttons

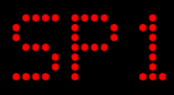


Rotate wheel to adjust volume

INPUT MUTE



One press for soft mute
and two for full mute
Third press or volume up
disengages mute

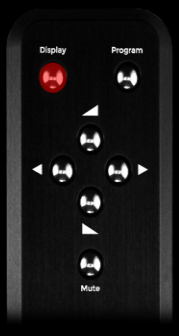


Soft mute instantly lowers volume by -20db

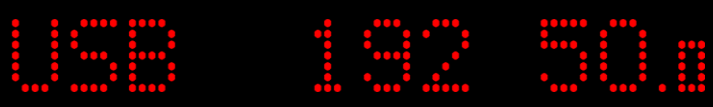
Full mute silences all inputs

ASC1 Display Modes

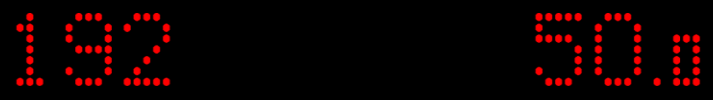
ACTIVE FOR ALL INPUTS



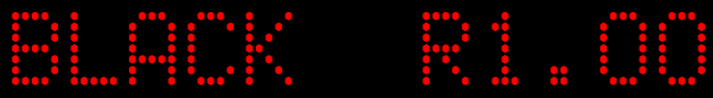
Press Display button to toggle display modes



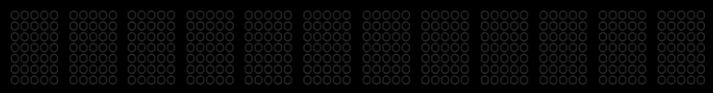
Input Sample Rate Volume



Sample Rate Volume

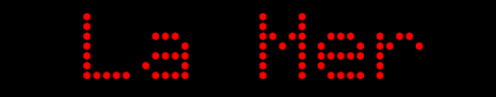


BLACK Firmware

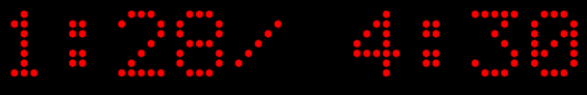


Off

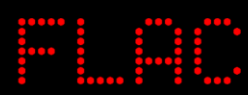
ACTIVE FOR ETHERNET ONLY



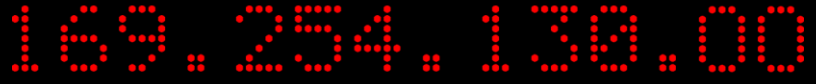
Track Title



Elapsed Track Time Total Track Time



File Type

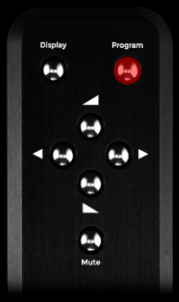


IP Address

ASC1 Programming

ACCESSING PROGRAM MODE

REMOTE



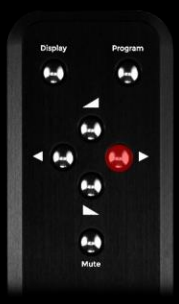
Press Program Button

WHEEL

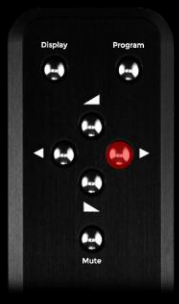
Press & HOLD wheel
for 2 to 3 seconds

NAVIGATING PROGRAM MODE

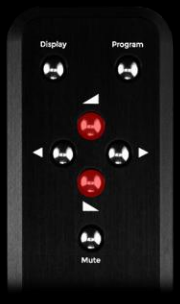
REMOTE



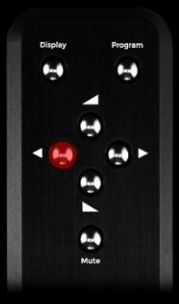
Press Right
to enter menu option



Press Right again
to select editable field



Press Up & Down
to select value



Press Left to
return to main menu
(could be multiple presses
if you're editing inputs)

WHEEL

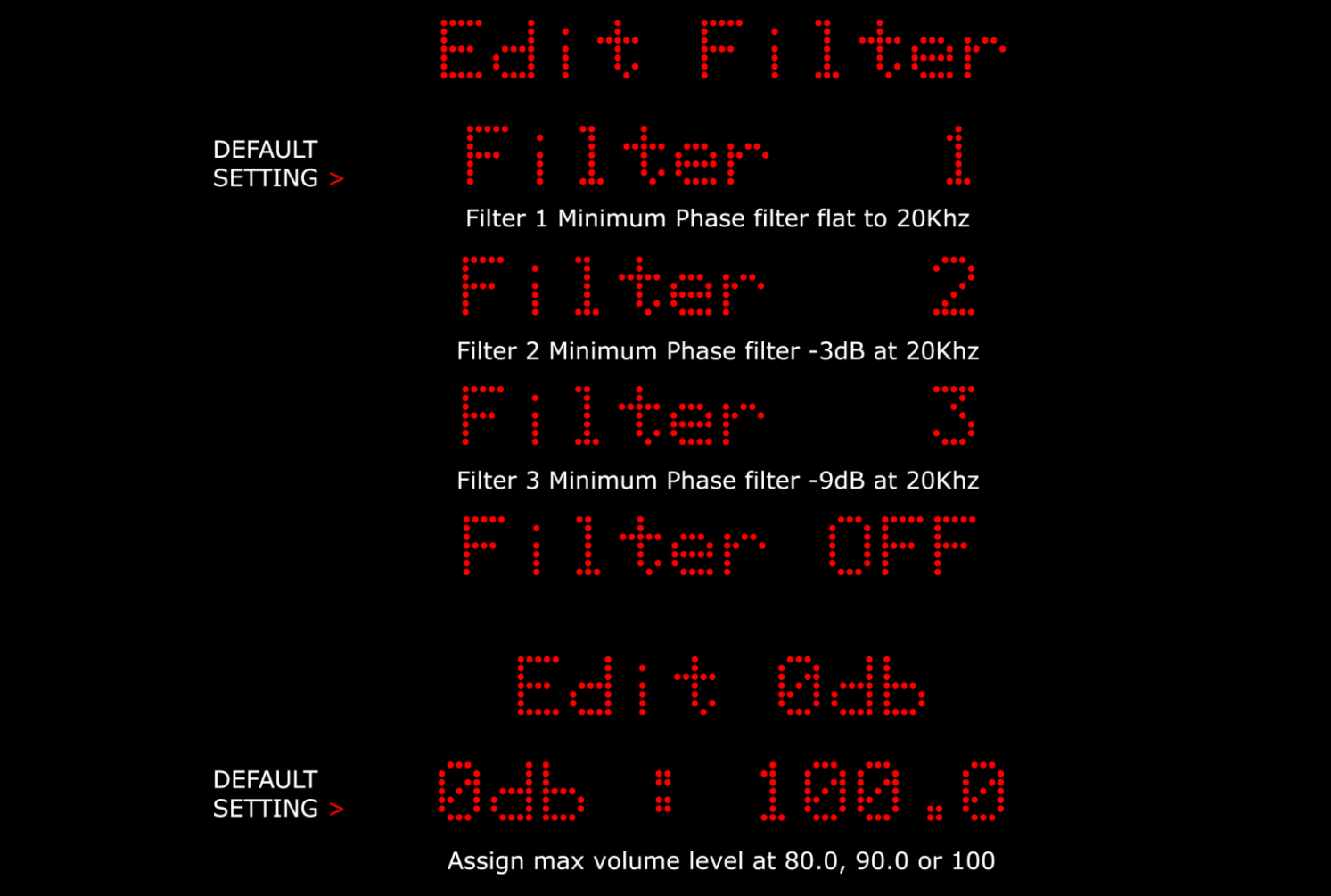
Rotate wheel to
scroll through menu
Press to enter menu item

Rotate to change value
Press to return to
main menu

If editing inputs
press button to cycle
through editable fields
Rotate wheel to select value

Press and HOLD wheel to
SAVE and exit
programming

Menu Options

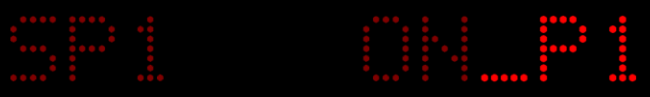

Edit Filter
DEFAULT SETTING >
Filter 1
Filter 1 Minimum Phase filter flat to 20Khz
Filter 2
Filter 2 Minimum Phase filter -3dB at 20Khz
Filter 3
Filter 3 Minimum Phase filter -9dB at 20Khz
Filter OFF

Menu Options

Shift balance in the direction of either speaker in .5dB increments
up to a total of 6dB difference - Values are 1-12 where 1 equals .5dB and 12 equals 6dB

Select Input to edit

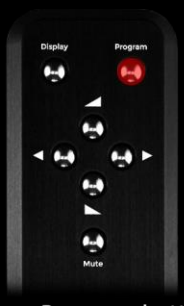
Turn Input on or off



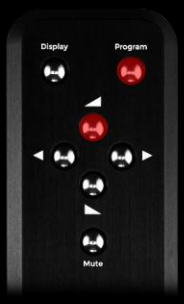
Customize a 4 character name for that input

Restore to factory settings

EXITING PROGRAM MODE



Press Program button



SAVE: YES

SAVE: NO

Press & HOLD wheel for
2 to 3 seconds

If any edits to programming were made,
you will be prompted to Save. YES is default. If you wish to save,
press Program again. If no, either press Up on the remote or rotate wheel to select NO.
Then leave program mode.

Controlling the MPS1

MPS1 Front Panel Button

After engaging the power switch on the back of the MPS1, the unit is in standby and LEDs will be dim

To enter operate mode, briefly press the button
LEDs will brighten

To enter standby mode, press the button for 3 seconds
LEDs will dim

To toggle the front panel indicator LEDs on and off, press the button center briefly while in operate mode

MPS1 Inputs

Balanced Analog Input for standard Analog Preamplifier connection
5Vrms Max

Green-Stream Input Lock Indicator

Analog/Stream input select switch
UP for Analog
DOWN for STREAM

StreamLink input connect from ASC1

Select Left or Right channel
red - right
yellow - left

Specifications

ASC1

Asynchronous Stream Controller

Maximum Data Input Rates:

24bits at 192KS/s:	AES XLR, SPDIF1/2, ST Fiber, TOSLINK
24bits at 192KS/s and DSD64:	UPnP/DLNA Ethernet
ULN Master Clock Phase Noise:	<40femtoSeconds RMS, 100Hz-1Mhz

FIR Filter Options:

Filter OFF:	Standard Linear Phase
Filter 1:	Minimum Phase Apodizing Flat to 20Khz
Filter 2:	Minimum Phase Apodizing -3dB at 20Khz
Filter 3:	Minimum Phase Apodizing -9dB at 20Khz

Analog Input:

Maximum Input:	2.5 Vrms RCA
Input Impedance:	12K ohms RCA
THD+N:	0.003%, 2.5Vrms in, 1KHz
Dynamic Range:	106dB, A-weighted 20Hz-20KHz

General:

Control Interfaces:	IR, Rotary Encoder, Ethernet, iOS/Android App
Power Usage On:	8W
Power Usage Off:	0.0W
Power Requirement:	100-120VAC or 230-240VAC 50/60 Hz Internally Set
Dimensions:	19Wx12Dx3.8H[inches] – 483 x 305 x 97[mm]
Weight:	40lbs-18.2Kg

Specifications

MPS1
Mono PowerStream

Power Output:	1200W-2ohm, 600W-4ohm, 300W-8ohm
Minimum Load:	2 ohms
Peak Output Current:	40 amperes
Frequency Response:	-3 dB 0Hz-50KHz, all loads
THD+N:	<0.001% 1W, 1KHz, 4 ohms
IMD (CCIF):	<0.001%, 1W, 18.5:19.5KHz 1:1, 4 ohms
Analog Input Voltage gain:	21dB
Damping factor:	>1000
Output Impedance at 100Hz:	<8 milliohms
Dynamic Range Stream Input:	128dB
Dynamic Range Analog Input:	108dB
ULN Master Clock Phase Noise:	<40femtoSeconds RMS, 100Hz-1Mhz
Analog Input Voltage for Max Output:	5Vrms
Input connections:	StreamLink ST Fiber or Analog balanced XLR
Balanced input impedance:	20Kohms
Output connections:	1-pair WBT Nextgen 5-way binding posts
Power On usage:	37W
Standby usage:	0.4W
Internally Set Operating Voltages:	100-120VAC or 230-240VAC 50/60 Hz
Size:	19Wx14Dx3.8H[inches] - 483x356x 97[mm]
Weight:	45lbs - 20.5Kg

CE

Declaration of Conformity

We, the offerer,
Bel Canto Design, Ltd., Minneapolis, Minnesota 55401 USA
acknowledge our sole responsibility, that the product:

Kind of equipment:	Black Series
Type designation:	MPS1, ASC1

in accordance with EMC Directive 2004/108/EC,
is in compliance with the following norm(s) or documents(s):

Technical regulations:	EN 55013:2001 + A1:2003 + A2:2006 EN 55020:2007 + A11:2011 EN 61000-3-2:2006 + A2:2009 EN 61000-3-3:2008

in accordance with Low Voltage Directive 2006/95/EC,
is in compliance with the following norm(s) or documents(s):

Technical regulations:	EN 60065 IEC 60065

in accordance with Ecodesign Requirements for Energy Related Products Directive 2009/125/EC,
is in compliance with the following norm(s) or documents(s):

Technical regulations:	EC No. 1275/2008, EN 62301

is in conformity with Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment, and it has been demonstrated that the requirements specified in Article 4 of such Directive have been met.

August 26, 2013

Bel Canto Design
221 1st Street North, Suite 300, Minneapolis, MN USA

John Stronczer
CEO

Bel Canto Design, LTD
221 First Street North, Suite 300
Minneapolis, MN 55401
Phone : 612.317.4550 Fax : 612.359.9358
www.belcantoblack.com
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